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TITLE: Bar code ordering system for bar code-controlled  
dispensing machine has bar code that is affixed to  
container to indicate to vendor what owner wishes to have  
placed in his container

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PATENT-ASSIGNEE: ANNAND C A[ANNAI]

PRIORITY-DATA: 2001CA-2346550 (May 30, 2001)

PATENT-FAMILY:

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CA 2346550 A1	November 30, 2002	E	022	G07F 007/00

APPLICATION-DATA:

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INT-CL (IPC): G06K019/00, G07F007/00

ABSTRACTED-PUB-NO: CA 2346550A

BASIC-ABSTRACT:

NOVELTY - A conventional type bar code (10) is affixed to a container, which may be a mug for coffee or some other beverage or a container for a specific product, to tell a vendor exactly what the owner wishes to have placed in his container. The bar code can also give the owner's name to an attendant and other information required by the vendor.

USE - For bar code-controlled dispensing machine.

ADVANTAGE - Can be personalized by vendor, such as with visual display or sound

or with owner's name at various locations where it would benefit vendor and buyer. Assures buyer that he will receive same product each time and in his own personalized container. Enables owner to enter contest based on frequency of purchase, and for winner to be recognized in vendor's shop. Owner can make prepaid deposit to vendor, enabling purchase to be automatically withdrawn from deposit by scanning bar code.

DESCRIPTION OF DRAWING(S) - The figure is an isometric view of a refillable and reusable mug.

Bar code 10

CHOSEN-DRAWING: Dwg.1/5

TITLE-TERMS: BAR CODE ORDER SYSTEM BAR CODE CONTROL DISPENSE  
MACHINE BAR CODE

AFFIX CONTAINER INDICATE VENDING OWNER PLACE CONTAINER

DERWENT-CLASS: T04 T05

EPI-CODES: T04-A03B1; T05-H02C1; T05-H04; T05-H08C;

SECONDARY-ACC-NO:

Non-CPI Secondary Accession Numbers: N2003-213522



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CANADIAN PATENT APPLICATION**

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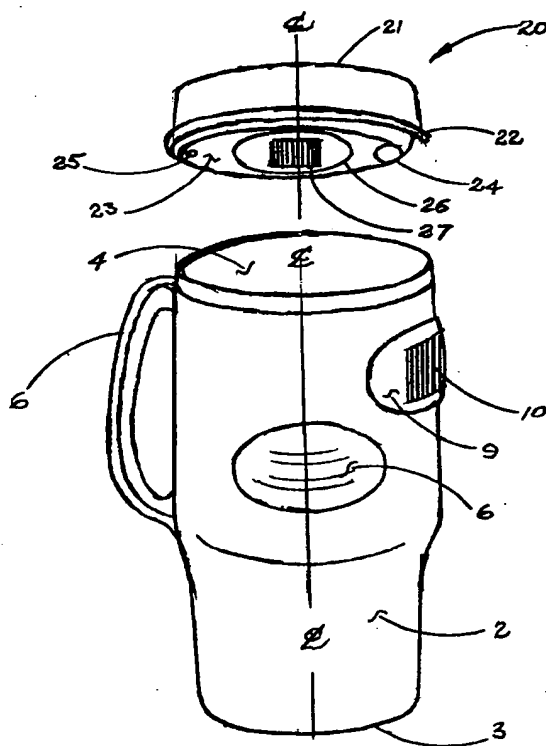
(51) Cl.Int.<sup>7</sup>/Int.Cl.<sup>7</sup> G07F 7/00, G06K 19/00

(71) Demandeur/Applicant:  
ANNAND, CHARLES A., CA

(72) Inventeur/Inventor:  
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(54) Titre : SYSTEME DE PRISE DE COMMANDES PAR CODE A BARRES

(54) Title: BARCODE ORDERING SYSTEM



(57) Abrégé/Abstract

A label system controlled by a barcode which would be relatively indestructible when attached to an article by some mechanical or heat seal means it could not be easily removed or altered and when attached to a refillable and reusable mug or container for coffee or some other beverage will identify the container with the buyer and will place exactly the same product within the container when requested to do so by the buyer from the vendor of the specific product as programmed by the bar code. The container for coffee, usually fitted with a removable cap, shall also have the same bar codes on the cap as on the body of the container which will allow the buyer to place the cap on a sensor which will identify the name of the buyer and will open compartments to allow retrieval of the products at a coffee house after payment has been made by cash or by vendors prepaid debit system.

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## **BARCODE ORDERING SYSTEM**

### **ABSTRACT:**

**A label system controlled by a barcode which would be relatively indestructible when attached to an article by some mechanical or heat seal means it could not be easily removed or altered and when attached to a refillable and reusable mug or container for coffee or some other beverage will identify the container with the buyer and will place exactly the same product within the container when requested to do so by the buyer from the vendor of the specific product as programmed by the bar code. The container for coffee, usually fitted with a removable cap, shall also have the same bar code on the cap as on the body of the container which will allow the buyer to place the cap on a sensor which will identify the name of the buyer and will open compartments to allow retrieval of the products at a coffee house after payment has been made by cash or by vendors prepaid debit system.**

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**1) FIELD OF THE INVENTION:**

A label system which uses a barcode, to identify the person and also the product to be purchased, the barcode is given to a person by the vendor of a product which would then allow the buyer to receive the same product, in kind and quantity, on each occasion when the container with the barcode attached was presented to the vendor for a product refill. The barcode would be securely attached to the container so it could not be altered in any way. As a practical example for the intended use of this invention when the barcode is applied to a conventional reusable and refillable coffee mug made of plastic or some other sanitary food grade material the label would be semi permanently attached and heat fused or attached by some other means at an exact position in relation to the shape and body of the container so as when the buyer presented the container in the proper manner to a semi automatic coffee dispenser the barcode would be visible to a scanner in the same manner and location on each occasion. The buyer of the container to which the

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barcode was attached would be identified at each time that the product or service was requested by the persons name or by way of a code number given to that buyer by the vendor. The only other information recorded would be their phone number and any other non-critical information required by the system. The systems computer program would then provide the same product or service, which the buyer had ordered previously and which was recorded on the barcode of the container. The buyers name and product selection would be recorded in the vendors main central computer which would construct the barcode and affix them to the coffee mug and cap which would be delivered to the coffee shop and given to the customer.

Where the barcode was to be used in the case of a reusable and refillable coffee mug with a removable cap, the barcode could be on either side of the cap or the cap would be of clear plastic and removed by the buyer and used later to claim their container. The cap could be cleaned by the buyer or placed in a wash and dry area and then taken

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by the buyer to later claim the container. The buyer holding the container by the handle would place it directly in the receiver and a scanner would read the barcode. However, if the owner wished the container and the cap to be washed they could invert the mug and place it in the wash station for a hot water wash and then remove and place it in the receiver location for the scanner to read the barcode. The computer with a sound synthesizer would address the person by name and ask if they wished the same order. The buyer at this time could have several options as designed into the system and if the buyer wished to change the program they could do so by pressing various buttons, or the buyer would press "yes" to continue. A coded ticket would then be extended to the buyer to show the cost to be paid or if the buyer was on the vendors prepaid debit system the coded ticket would be marked paid and show the balance remaining. The upright container would continue to a fill station, milk and sugar would be added if pre-programmed and then filled with the requested amount and type of coffee and other such ingredients as requested on the barcode would be added

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**and the container would then be mechanically moved to a new position behind closed clear doors where the buyers name would be displayed to an attendant who would address the buyer by name, if they wished any other products. And also ask for their ticket to pay for their purchase and to place their top with the matching barcode to a flashing sensor to receive their purchase. These transactions would be displayed visually or could be done with a voice synthesizer. If the barcodes matched the buyer would know they were receiving their personalized container with the contents exactly as previously received, and the door to the container location would open and the container would be removed by the buyer and the top attached. The buyer could also request other products by pressing a series of buttons which would automatically release these products already bagged with a separate payment tab at the attendants station or order directly from the attendant.**

**Another advantage with this barcode controlled dispensing machine is to personalize the system by the vendor, as they would wish,**

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( 05 )

**with a visual display or with sound, with the owners name at various locations where it would be a benefit to the vendor and also the buyer.**

**This invention relates to a barcode which resembles the conventional commercial type barcode as now used to identify a known product and the product manufacturer and as commonly seen on various retail products. However, this barcode system is the direct opposite in that, it is prepared by the vendor for a specific customer with their name and product wanted and attached to a container for that product. It then assures the buyer that they will receive the same product each time and in their own personalized container.**

**This invention would use a microcomputer in combination with a main frame computer with the program prepared by the vendor to guarantee that the buyer would receive the same product each time. The buyers name and size of coffee they purchased would be recorded in the microcomputer each time for comparing and**

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verifying the barcode and debt transactions. At some convenient interval the vendor could have a "lucky winner" draw where the winner would be drawn from the number of times they purchased the product, by using their personalized mug with the barcode, which would then display the winners name in a visual and vivid display at the vendors store with various other promotions to promote the system and the vendor's products. The barcode would be programmed to only work in prearranged geographical locations as desired by the vendor and the vendor's owner of the system.

The prepaid debit system would allow the buyer to make a paid deposit with the vendor, which would be automatically withdrawn from the deposit when a purchase was made with the owner's barcode. The purchase slips would show the amount spent and the balance remaining and would save the buyer the problems of money transfer at the time of purchasing the vendor's product. The buyers cap with barcode could at any time be displayed to a visible sensor, so marked, to show the debit balance and to make a deposit in the prepaid account.

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**The semi-automatic dispensing system as indicated in the drawings as a combined unit could also be made in separate units.**

**The unit as shown in Figure 5 would be a separate or independent type unit and could be placed at various locations in the vender's shop to increase traffic flow and customer convenience. These separate or combined units with the prepaid debit system will also function as "drive through" units in a coffee shop or other quick order location which will allow the vender more flexibility in placing the units for increased customer satisfaction. The "in and out" refill dispensing station as shown in Figure 5 allows the buyer to place his container with the barcode inside the unit through the open doors and the inside sensor will read his barcode and fill his container as requested and issue a payment slip for the prepaid debit system which will allow the doors to open when activated by the cap barcode and the container can then be removed by the buyer. The buyers name is also displayed and any other functions such as a pre-timed quick wash are possible by pressing certain pre-programmed buttons as the system would require.**

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**2) CROSS REFERENCE TO OTHER APPLICATIONS:**

**This information and details to follow on our formal application.**

**3) DESCRIPTION OF PRIOR ART:**

**This information and details to follow on our formal application.**

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**4) OBJECTS AND ADVANTAGES :**

Accordingly, several objects and advantages of my invention are a means which will allow an individual buyer to be personally recognized and to enter a contest by the frequency of his purchasing and by the way the winner can be recognized at the vendors shop. The use of a barcode on the coffee mug and the cap assures the buyer of personalized service with his own coffee mug and the same purchase each time with a cash payment or a integrated prepaid debit payment system.

**5) CLAIMS: To follow later.**

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**6) BRIEF DESCRIPTION OF THE DRAWINGS:**

**This provisional patent application will now be described merely by way of illustration with reference to the accompanying drawings in which:**

**FIGURE 1 - Is an isometric view of the refillable and reusable coffee mug 1, with the outside shell 2, and bottom 3, and inside liner wall 4, and handle 5, with an advertising area 6, with the vendor's barcode 10 semi-permanently attached to the coffee mug with a heat sealed layer 9, opposite the handle 5. The cap or top 20 is as shown with the top lip 21 and rim 22 and bottom surface 23 and drinking hole 24 and vent 25. The buyers bar code 27 is attached to the topside or underside and sealed with the fused disk 26 to the bottom as shown of the cap 20.**

**FIGURE 2 - Is a side view of the coffee mug 1, with the top or cap removed and inverted and placed over a hot water wash spray head 32, supported on a water supply pipe 31 in the wash area 32 with**

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drain holes 33 and retained in place by locator rods 34. The barcode 10 is under the plastic disc 9. The sensor 35 can read the bar code 10 if the owner wishes an extra hot rinse and the lever 36 activates the wash to turn it on or off. The front area 37 can be used for washing the cap of the container.

FIGURE 3 - Is a side view of a conventional coffee mug 1, as manufactured by Aladdin under patent number US 5916470. The outer shell 2 protects and insulates the inner shell 4 from the hot beverage, handle 5 and advertising label 6 and bottom 3 and removable cap 20, as shown.

FIGURE 4 - Is a possible layout of a semi automatic coffee dispensing combination station 40 where the buyers coffee mug can or cannot be hot water washed 41 and the cap is removed and placed in a wash area 45, the mug is inverted and placed through the vinyl strip curtain 49 or the coffee mug, if clean can be placed directly in the receiving area 42 by the buyer where a sensor would read the buyers bar code and the system would guide the mug through a filling area 44 for the pre-programmed contents to

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be placed in the mug, napkin dispensers 46 could be located as shown. A payment tab 51 would exit the system for the buyer. The buyer can change his order by buttons 50, and the buyers name would show at 48, and the attendant could then address the buyer by name and offer any additional products at the display station 54 or they can order prepackaged products by pressing buttons 53 which would cause a second tag 55 to exit at station 54. The prepackaged products would exit at 56 and the doors 57 would open when the buyer would place his cap on the cap sensor after he made payment and the doors 47 to the exit station 45 would open for the buyer to retrieve his purchase.

FIGURE 5 - Is a front view of a possible single function dispensing station 60 at a "drive thru" for dispensing a beverage and napkins 69 and the buyers mug 63 is placed 62 through the doors 64 the sensor (not shown) reads the buyers barcode and the payment debit tab 67 exits and the buyers name can show at 70 and the sensor 66 will read the buyer's cap to open the doors 64. Button 68 could give the inverted mug 63 a quick wash.

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**BAR-CODE ORDERING SYSTEM: Continuation of Provisional Patent, Application No:  
2,346,550, dated May 1st - 2001**

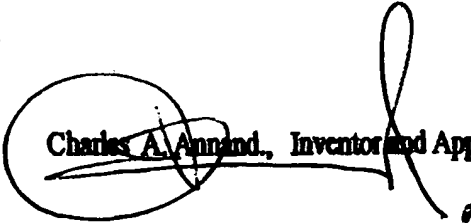
**CLAIMS: The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:**

- 1) - I claim the use of a conventional type bar-code when affixed to a container which may be a mug for coffee or some other beverage or a container for a specific product will tell the vendor exactly what the owner wishes to have placed in his container.
  - 2) - The bar-code will also give the owners name to the attendant and other information as required by the vendor.
  - 3) - When used with a conventional mug for coffee the bar-code will be provided by the vendor and attached to the mug and sealed with a food grade clear plastic seal at a location which can be read by a sensor in a automatic coffee dispenser.
  - 4) - I claim a method by which a Micro Computer in the retail outlet can be programmed to accept the buyers bar-code information and be also connected to the main frame company computer.
  - 5) - I claim a method by which the bar- code information can be changed in the Micro Computer by the owner for the addition or deletion of any products sold by the vendor and the bar-code will not have to be physically changed but will register the new information.
  - 6) - I claim a bar code which will also have a control number or PIN number which will be the personal identification number of the owner and will allow the owner to enter the PIN number on a key pad which will by-pass the containers bar code to obtain the vendors product in a different container in the same semi-automatic dispenser for the vendors product.
  - 7) - I claim a method by which when the PIN number is punched in on a key pad it will produce a " loaner " container or a disposable container which would be filled with the same predetermined product by the vendor to the buyer.
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Provisional Patent No: 2,346,550 (cont'd) Page (2)

- 8) - I claim a container with attached bar code which when placed in a special receiver will result in a pre-selected product mix placed in the container from the dispenser and any other related products as requested by the bar-code from a second dispenser.
- 9) - I claim a method by which an authorized pre-payment Debit system for the products as ordered by the bar-code will show the exact cost and any balance remaining in the owners account on a receipt slip which would exit the system and be retrieved by the buyer.
- 10) - I claim a container for a product which would have a removable cap or cover which would have the same bar-code attached to the surface of the cap as the bar-code attached to the body of the container and with similar protection.
- 11) - I claim a container with attached bar-code which would if desired call for a hot water wash of the container before the product was placed in the container.
- 12) - I claim a container with attached bar-code which when placed in a dispenser will display the buyers name as authorized by the bar-code and where an attendant can then address the buyer by that name when ever necessary.
- 13) - I claim a container with attached bar-code which when placed in a receiver dispenser would cause a door or set of doors to close and prevent removal of the container until the buyer would place the cap of his container on a sensor which would read the bar-code and allow the doors to open for removal of the container and the receipt by the buyer.
- 14) - I claim a container with attached bar-code and removable cap where when the cap is placed on the sensor to open the dispenser doors the micro computer of the store will record the transaction and if a contest is on at that time and the buyer meets the vendors contest conditions then the buyers name could be displayed as a "winner" and the buyer will be able to claim a specific prize.

Respectively submitted by:

 Charles A. Annand., Inventor and Applicant.

Per: CAA : caa

Dated, March

/2002

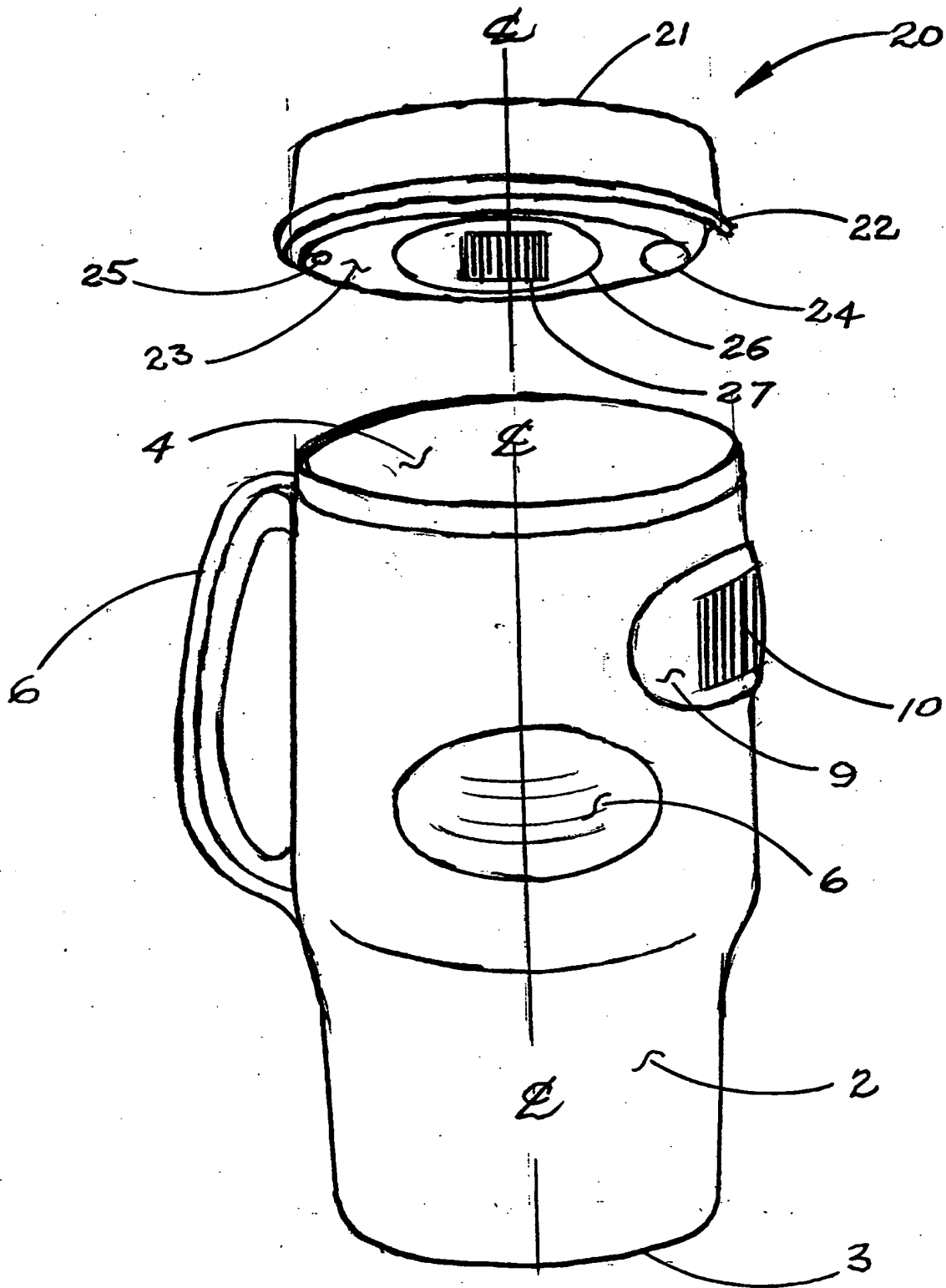
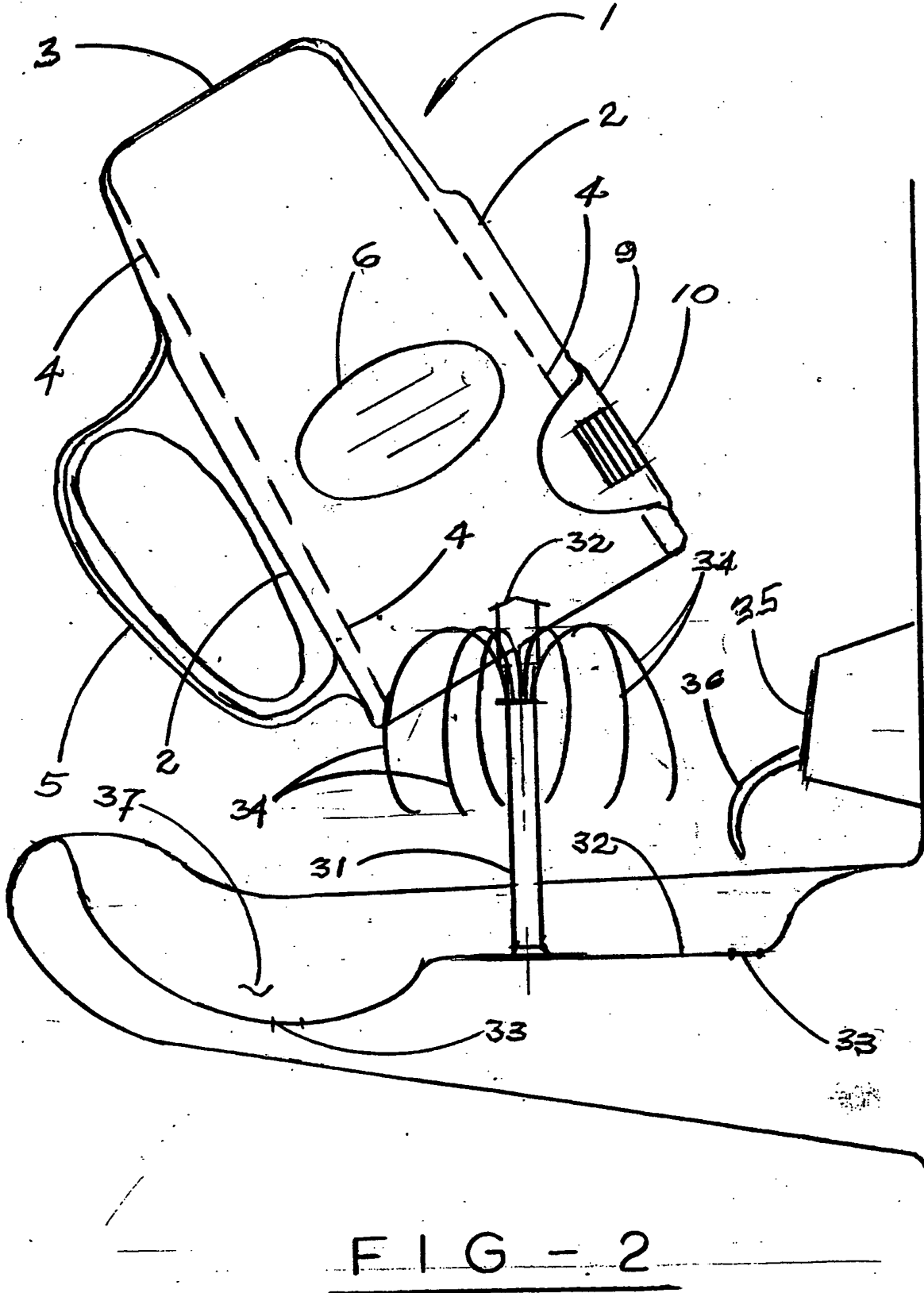


FIG - I



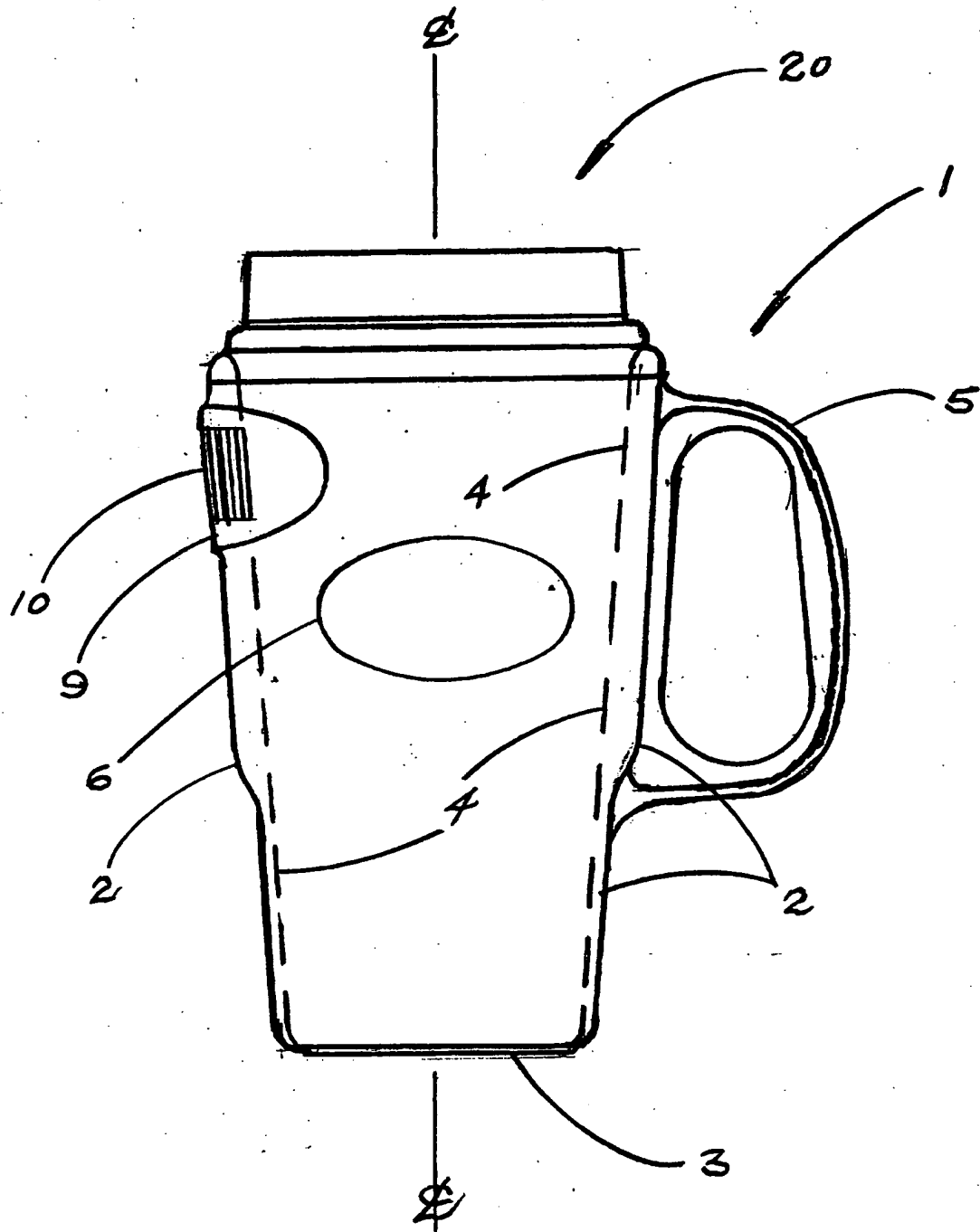


FIG - 3

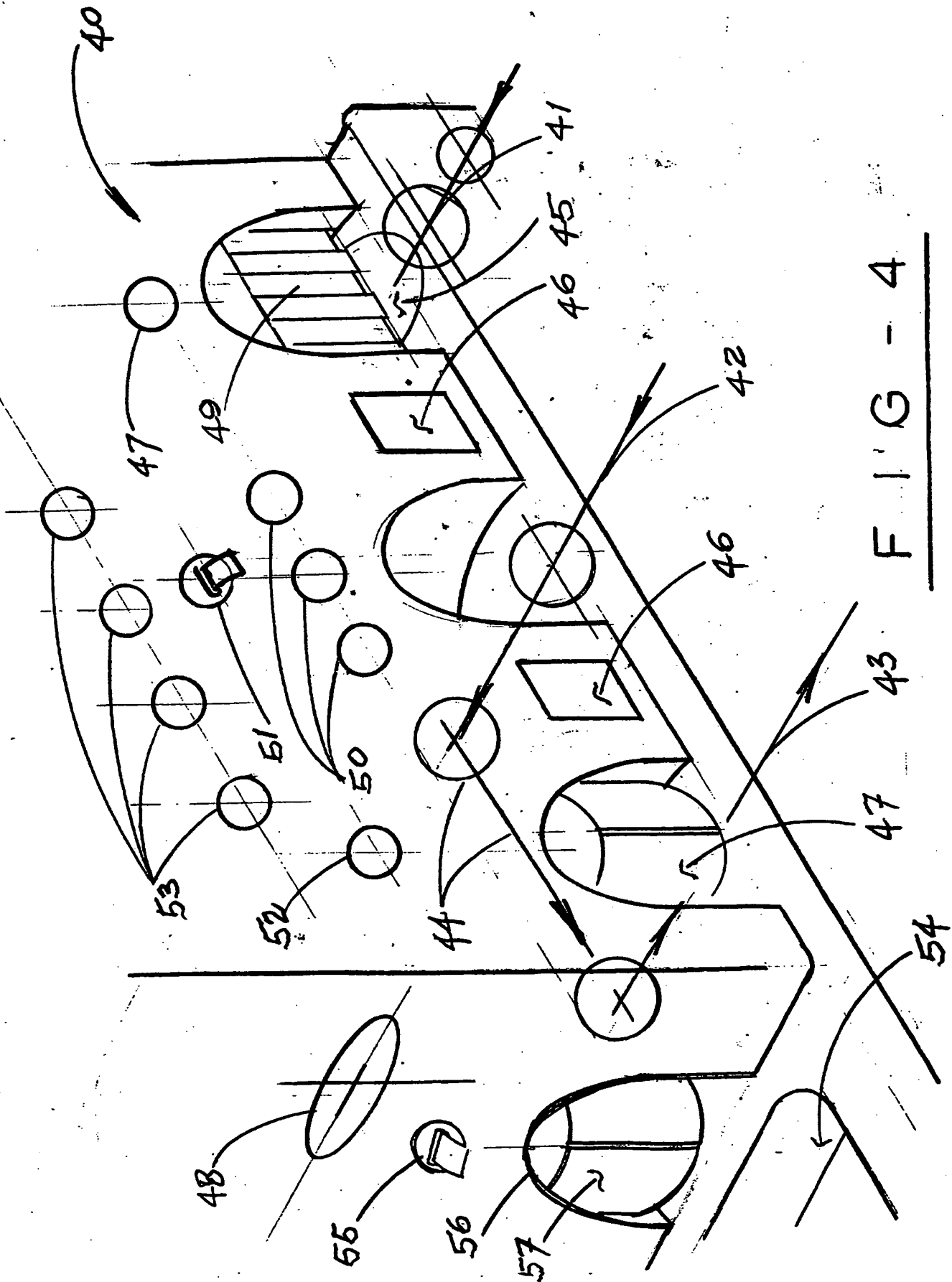
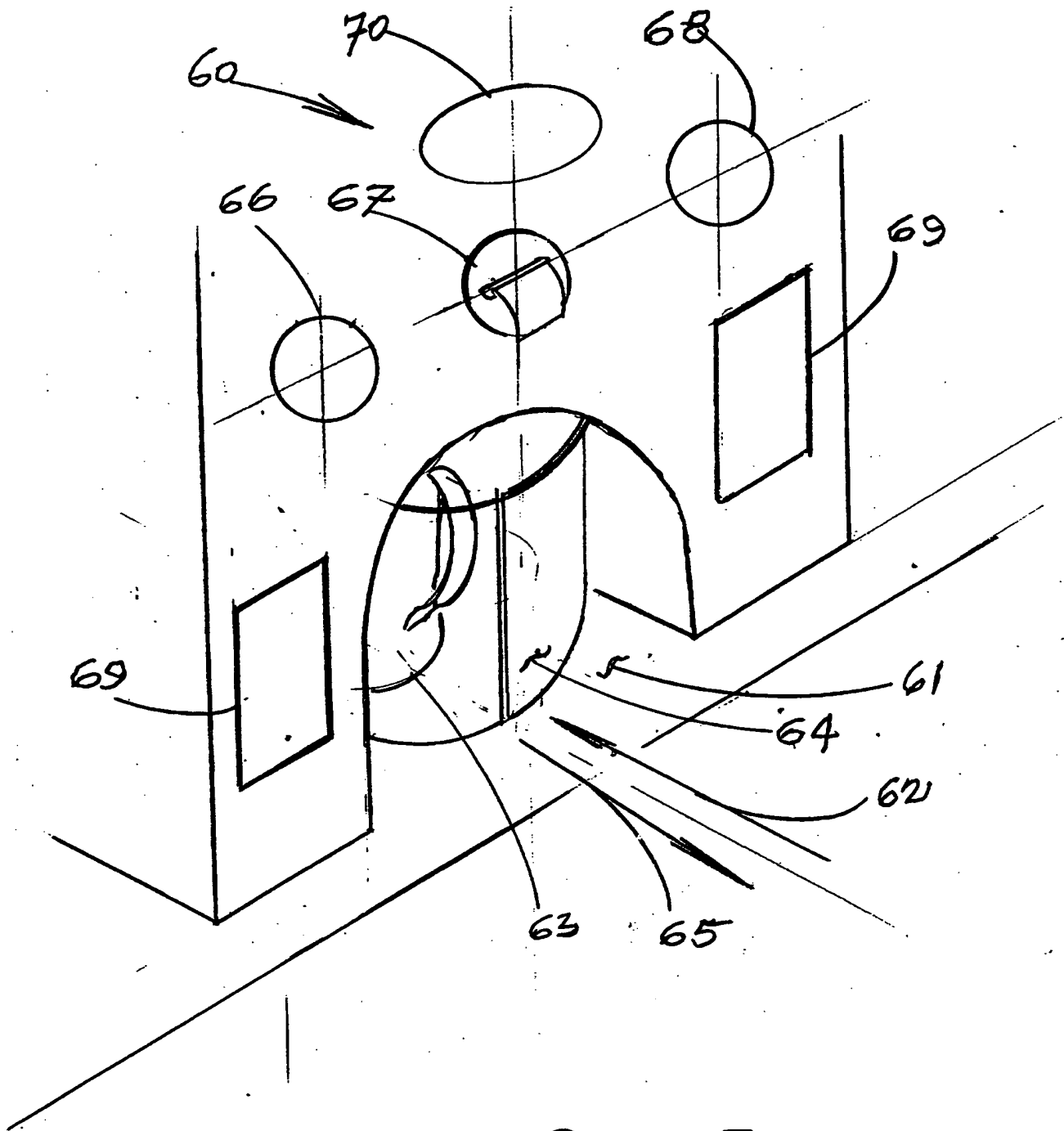


FIG - 4



F I G - 5

